

What is claimed is:

1. A gas/liquid separator element comprising:
  - (a) first and second, opposite, end caps;
  - (b) a media pack extending between the first and second end caps and defining an open central interior;
    - (i) the media pack including a drain stage and a coalescing stage;
    - (ii) the media pack having a cross-sectional periphery with a perimeter shape having a long cross-sectional axis, a short cross-sectional axis and an aspect ratio of at least 1.3; and
  - (c) an outwardly directed spigot having a non-circular cross-section shape.
2. A gas/liquid separator element according to claim 1 wherein:
  - (a) the media pack cross-sectional periphery is elliptical with an aspect ratio within the range of 1.5 to 2.3, inclusive.
3. A gas/liquid separator element according to anyone of claims 1 and 2 wherein:
  - (a) the coalescing stage is surrounded by the drain stage, and the element is configured for in-to-out flow in normal use.
4. A gas/liquid separator element according to any one of claims 1-3 wherein:
  - (a) the first end cap is a closed end cap.
5. A gas/liquid separator element according to any one of claims 1-4 wherein:
  - (a) the second end cap includes a non-circular aperture having a first, long, axis and a second, short, axis with an aspect ratio of at least 1.3.
6. A gas/liquid separator element according to any one of claims 1-5 wherein:
  - (a) the spigot has a cross-sectional outer periphery with an aspect ratio of at least 1.3.

7. A gas/liquid separator element according to any one of claims 1-6 wherein:
  - (a) the spigot has a cross-sectional outer periphery shape with an aspect ratio of at least 1.5.
8. A gas/liquid separator element according to any one of claims 1-7 including:
  - (a) an o-ring positioned on an exterior of the spigot.
9. A gas/liquid separator element according to any one of claims 1-8 wherein:
  - (a) the coalescing stage comprises a formed media positioned against an interior surface of an elliptical porous tube.
10. A gas/liquid separator assembly comprising:
  - (a) a vessel including: an outer wall; a gas flow inlet projecting through the outer wall, a gas flow outlet projecting through the outer wall; and, a lower sump;
  - (b) a tube sheet arrangement separating the vessel into an upper region and a lower region;
    - (i) the tube sheet arrangement being positioned so that the gas flow inlet is in direct communication with the lower region and the gas flow outlet is positioned to receive gas flow directly from the upper region; and,
  - (c) at least one removable and replaceable separator element operably secured to the tube sheet in a position with a media pack projecting into the upper region; each separator element comprising:
    - (i) first and second, opposite, end caps;
    - (ii) a media pack extending between the first and second end caps and defining an open central interior;
      - (A) the media pack including a drain stage and a coalescing stage;
      - (B) the media pack having a cross-sectional periphery with a perimeter shape having a long cross-sectional axis, a short cross-sectional axis and an aspect ratio of at least 1.3; and

- (iii) an outwardly directed spigot having a non-circular cross-section shape.
- 11. A gas/liquid separator assembly according to claim 10 wherein:
  - (a) the gas flow outlet is a radial outlet with a radially directed outlet axis; and,
  - (b) the assembly includes only one separator element; and,
  - (c) the separator element is positioned with a long cross-sectional axis thereof generally orthogonal to the outlet axis.
- 12. A gas/liquid separator assembly according to claim 10 wherein:
  - (a) the gas flow outlet is a radial outlet with a radially directed outlet axis;
  - (b) the assembly includes only two separator elements; and,
  - (c) the two separator elements are positioned with:
    - (i) the outlet central axis directed between the two separator elements; and
    - (ii) the longer cross-sectional axis of each element aligned generally parallel with the outlet central axis.
- 13. A gas/liquid separator according to claim 10 wherein:
  - (a) the gas flow outlet is a radial outlet with a radially directed outlet axis;
  - (b) the assembly includes only three separator elements;
  - (c) a first two of the three separator elements are each positioned with:
    - (i) the outlet central axis directed between them; and
    - (ii) with a longer cross-sectional axis of each of the first two of the three separator elements directed toward the gas flow outlet; and,
  - (d) a third one of the three separator elements is positioned with:
    - (i) the outlet central axis intersecting the third separator element; and
    - (ii) a longer cross-sectional axis of the third separator element generally orthogonal to the outlet central axis;

- (e) the third separator element being positioned further from the outlet than the first two of the separator elements.
14. A gas/liquid separator assembly according to claim 10 including:
- (a) a preseparation assembly including:
    - (i) a radially continuous tube sheet structure portion positioned spaced from the vessel outer wall to define a gas flow annulus therebetween,
    - (ii) an inlet skirt extending between the tube sheet structure and the vessel outer wall;
      - (A) the gas flow inlet being positioned to direct inlet gas flow into the gas flow annulus above the inlet skirt;
      - (B) the inlet skirt including at least one downcomer channel at a location radially spaced from the inlet; and,
    - (iii) a radial vane positioned between the downcomer channel and the gas flow inlet to direct gases through a radial path of at least 70° before the gases can pass from the gas flow inlet through the downcomer channel; and,
  - (b) the at least one removable and replaceable separator element being surrounded by, and spaced from, the gas flow inlet by the tube sheet structure portion.
15. A gas/liquid separator assembly according to claim 14 wherein:
- (a) the radial vane is positioned to direct gases through a radial path of at least 180° before the gases can pass from the gas flow inlet through the downcomer channel.
16. A method of separating gas and liquid from a gas/liquid mixture including a step of:
- (a) passing the gas/liquid mixture through a separator element having a media pack including a coalescing stage and a drain stage, and having a cross-sectional aspect ratio of at least 1.3;

- (i) said method including passing the gas/liquid mixture with an in-to-out flow.

- 17. A method of assembling a gas/liquid separator assembly according to any one of claims 10-15 for operation, including a step of:
  - (a) positioning the at least one separator element within the housing, as described.